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UNCLASSIFIED

UNITED STATES INTERNATIONAL DEVELOPMENT COOPERATION AGENCY  
AGENCY FOR INTERNATIONAL DEVELOPMENT  
Washington, D. C. 20523

COSTA RICA

PROJECT PAPER

RURAL INFRASTRUCTURE RESTORATION

AID/LAC/P-654

PROJECT NUMBER: 515-0269

UNCLASSIFIED

AGENCY FOR INTERNATIONAL DEVELOPMENT

PROJECT DATA SHEET

1. TRANSACTION CODE

A = Add  
 C = Change  
 D = Delete

Amendment Number

DOCUMENT CODE

3

COUNTRY/ENTITY  
Costa Rica

3. PROJECT NUMBER  
515-0269

4. BUREAU/OFFICE  
LAC

5. PROJECT TITLE (maximum 40 characters)

Rural Infrastructure Restoration

6. PROJECT ASSISTANCE COMPLETION DATE (PACD)

MM DD YY  
10 15 31 12

7. ESTIMATED DATE OF OBLIGATION  
(Under "B" below, enter 1, 2, 3, or 4)

A. Initial FY 1911 B. Quarter 3 C. Final FY 1912

8. COSTS ( \$000 OR EQUIVALENT \$1 = )

A. FUNDING SOURCE	FIRST FY			LIFE OF PROJECT		
	B. FX	C. L/C	D. Total	E. FX	F. L/C	G. Total
AID Appropriated Total	3,000			3,000		3,000
(Grant)	( 3,000 )	( )	( )	( 3,000 )	( )	( 3,000 )
(Loan)	( )	( )	( )	( )	( )	( )
Other						
U.S.						
Host Country						
Other Donor(s)						
<b>TOTALS</b>	<b>3,000</b>			<b>3,000</b>		<b>3,000</b>

9. SCHEDULE OF AID FUNDING (\$000)

A. APPRO- PRIATION	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH. CODE		D. OBLIGATIONS TO DATE		E. AMOUNT APPROVED THIS ACTION		F. LIFE OF PROJECT	
		1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan
(1) ARDN	930	820				3,000		3,000	
(2)									
(3)									
(4)									
<b>TOTALS</b>						<b>3,000</b>		<b>3,000</b>	

10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each)

061

11. SECONDARY PURPOSE CODE

12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each)

A. Code

B. Amount

13. PROJECT PURPOSE (maximum 180 characters)

To carry out emergency restoration in the earthquake damaged Atlantic Zone of Costa Rica.

14. SCHEDULED EVALUATIONS

Interim MM YY MM YY Final MM YY

15. SOURCE/ORIGIN OF GOODS AND SERVICES

000  941  Local  Other (Specify)

16. AMENDMENTS/NATURE OF CHANGE PROPOSED (This is page 1 of a \_\_\_\_\_ page PP Amendment.)

17. APPROVED BY

Signature

Title

Assistant Administrator, LAC

Date Signed

MM DD YY  
01 21 12

18. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION

MM DD YY

PROJECT AUTHORIZATION

Costa Rica

Rural Infrastructure Restoration Project

Project No. 515-0269

1. Pursuant to Section 103 of the Foreign Assistance Act of 1961, as amended, I hereby authorize the Rural Infrastructure Restoration Project for Costa Rica involving planned obligations of not to exceed Three Million United States Dollars (\$3,000,000) in grant funds over a three month period from the date of this authorization subject to the availability of funds in accordance with the A.I.D. OYB/allotment process to help in financing foreign exchange and local currency (to the extent permitted in sub-paragraph 4c below) costs for the project. The planned life of the project is one year from the date of initial obligation.
2. The project consists of the following activities: engineering and other planning services necessary for the repair of roads, bridges, port facilities, and other physical infrastructure in the regions of Costa Rica affected by the recent earthquake; construction services necessary to effect some repairs; and supervision of the construction work.
3. The Project Agreement or Agreements which may be negotiated and executed by the officer or officers to whom such authority is delegated in accordance with A.I.D. regulations and Delegations of Authority shall be subject to the following essential terms and covenants and major conditions, together with such other terms and conditions as A.I.D. may deem appropriate.
4. (a) Commodities financed by A.I.D. under the Project shall have their source and origin in the United States, except as A.I.D. may otherwise agree in writing.
  - (b) Except for ocean shipping, the suppliers of commodities or services shall have the United States as their place of nationality, except as A.I.D. may otherwise agree in writing.
  - (c) To the extent permitted under the Agency's Buy America guidance cable dated December 5, 1990, State 410442, procurements with an estimated value of \$2.5 million will be local source and origin with local suppliers of services and commodities.

(d) Ocean shipping financed by A.I.D. under the Project shall, except as A.I.D. may otherwise agree in writing, be financed only of flag vessels of the United States.

  
James H. Michel  
Assistant Administrator for  
Latin America and the Caribbean

MAR 22 1991

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Clearances:

JEvans, LAC/DR	<u>ML</u>	Date:	<u>5/4/91</u>
MSilverman, LAC/DR	<u>DRAFT</u>	Date:	<u>05/16/91</u>
JBourgault, LAC/DR	<u>JB</u>	Date:	<u>05/20/91</u>
BSchouten, LAC/DPP	<u>B.S.</u>	Date:	
RMeehan, LAC/DPP	<u>DRAFT</u>	Date:	<u>05/15/91</u>
TBarker, PPC/PD	<u>DRAFT</u>	Date:	<u>05/20/91</u>
Rasselin, LAC/CEN	<u>GD FOR</u>	Date:	<u>05/20/91</u>
GDaniels, LAC/CEN	<u>DRAFT</u>	Date:	<u>05/20/91</u>
CAadams, LAC/DPP	<u>DRAFT</u>	Date:	<u>05/20/91</u>

DRAFTED:GC/LAC:TGeiger:63320:05/10/91

SOUTHCOM Engineer Damage Assessment Team Report  
Costa Rica Earthquake  
25-30 April 1991

Prepared for:

Mr. Robert Homme, Charge  
United States Embassy, Costa Rica

Mr. Ronald Venezia, Mission Director  
United States Agency for International Development

Mr. Paul Bell, Regional Advisor, LATAM  
Office of Foreign Disaster Assistance

30 April 1991

Team Members:

LTC Richard P. Price, Panama Area Engineer (PAE), Team Chief  
Mr. Patrick McFarlane, Emergency Management, GM-13, Mobile District  
Mr. Augusto Noiran, Supervisory Engineer, GS-12, PAE  
Mr. Joel Ansley, Engineer/Estimator, GS-12, Mobile District  
Mr. Allen Davis, Structural Engineer, GS-12, Mobile District

## Abstract

This report is a summary of the findings of the SOUTHCOM Engineer Damage Assessment Team which were presented preliminarily to Mr. Stone, Secretary of the Army, Mr. Homme, Charge de Affairs Costa Rica, Vice President Chandi and Minister of Public Works and Transport Madris of Costa Rica on 28 April. The findings were presented in detail at 1200 hours, 29 April at a meeting hosted by Vice President Chandi, Mr. Homme, and representatives of the Public Works Ministry, Railroad Commission, Standard Fruit Company, the World Bank and US AID personnel. The findings were discussed at great length and approved by the Government of Costa Rica. The Government of Costa Rica, Vice President Chandi, requested of the US Charge, Mr. Homme, that the US Government pursue implementation of the recommendations made by the Engineer Damage Assessment Team.

The findings fall into two phases. Phase I is the immediate restoration of lines of communication (highway and railroad) for the earthquake damaged area south of Limon to the Costa Rican/Panama border town of Sixaola. This work is designed to restore the railroad system and provide an alternate vehicular route to Limon within three months. It also includes the repair of three damaged railroad bridges, reconstruction of a highway bridge and emplacement of 80m of hasty Bailey bridging to provide connection between Limon and areas south. A study of the damaged port facilities is a part of this phase, as well as demolition and removal of the destroyed bridges.

Phase II is the longer term restoration of the bridges and roads bypassed by the immediate restoration. Included in this phase is reconstruction of the Limon International Airport which was damaged during the earthquake. It also encompasses possible repairs of the port facility at Limon which sustained considerable structural damage in the earthquake.

The information included in this report is as follows:

1. Phase I Immediate Restoration Engineer Damage Assessment
2. Phase I Summary Sheet
3. Sketch of Phase I Item Locations
4. Phase II Long Term Restoration Engineer Damage Assessment
5. Phase II Summary Sheet
6. Photographs of Bridges inspected by Team
7. Damage Survey Reports with Analysis and Government Cost Estimates

Note that government cost estimates (item 7) are For Official Use Only until after award of contracts.

## ENGINEER DAMAGE ASSESSMENT

### PHASE I: IMMEDIATE RESTORATION

Revised: As of 13 May 1991

#### 1. RIO VIZCAYA BRIDGE

This 75 m reinforced concrete bridge was totally destroyed by the 22 April, 1991 earthquake. It is the most important vehicular link in restoring vehicular transportation. Until this bridge is restored, everything south of the Rio Vizcaya to Sixaola is isolated. It is critical that this crossing be restored as soon as possible. Restoration of the permanent reinforced concrete bridge with seismic design should will begin immediately, but will take 4-6 months. Impacement of a Costa Rican provided Bailey Bridge will temporary restore the flow of traffic while the permanent bridge is under construction the cost of placing the Bailey Bridge is \$160,000. The cost of the new permanent reinforced concrete bridge is estimated at \$455,000.

#### 2. ATALANTA RR BRIDGE (Rio Estrella)

The second vital link in the Atalanta Railroad Bridge. Restoration of this bridge will open a secondary route for traffic south of the Rio Estrella all the way to Sixaola. It is a 165 m railroad bridge, with two main steel trusses, which was built in 1889. The bridge is used for both railroad and one-way vehicular traffic. It is currently unsafe. Railroad track approaches were destroyed by the earthquake. However, we observed small pick-up trucks crossing this bridge. Repair of bents under the main spans, the approach spans, and decking need to be accomplished immediately before further damage is incurred. Stringers under approach spans are presently being supported only by the railroad rails on the bridge. Total cost of the immediate repairs is estimated to be \$152,000. This should take one month and will restore the existing bridge to use rapidly, but it is not a seismic design.

#### 3. BANANITO SUR RR BRIDGE (Rio Bananito)

The third priority is the repair of the Bananito Sur railroad bridge. This bridge is totally unsafe and unusable at the present time. Abutments were destroyed by the earthquake. The bridge is a single span steel truss, presently resting on abutment debris and natural river bank, at approximately a 20 degree list from the vertical. The repair consists of jacking up the existing truss, rebuilding abutments, and restoring the rails and vehicular decking. This will restore the main bridge for the Atalanta-Bananito Sur railroad section, and allow for rail transport of heavy loads of perishable fruit to Limon. It will also eliminate the need for heavy truck traffic on the bypass road. The Railroad company has begun temporary repairs that may permit limited vehicular traffic. Due to the temporary nature of these repairs a hazardous condition could develop. Total estimated cost of repairs is \$137,000 and should be completed in 6 to 8 weeks.

#### 4. BANANO RIVER HIGHWAY BRIDGE

The Banano River Bridge structure was not badly damaged, however, the abutment on the south side was displaced and all piling underneath the abutment were sheared off. Abutment is still aligned over the piles, however, with no connections, the abutment is held in place only by its dead weight. Since the bridge is now in limited use, this is an unsafe condition, and repair to the abutment needs to be done quickly in order to prevent movement of the foundation due to continued traffic. Estimated cost of repair is \$108,000 and can be accomplished in three weeks.

5. B. LIMON-VIZCAYA ROAD

This 10.4 mile section Westfalia, of highway was badly damaged by the earthquake to include approaches to the Vizcaya, Banano Bridges. In order to restore normal vehicular traffic, the road between these bridges and approaches to the bridges need to be repaired. This includes windrowing of existing asphaltic pavement, fill, compaction and resurfacing the existing roadway. Estimated cost of this item is \$650,000.

6. WESTFALIA BRIDGE

The Westfalia Bridge is an 16 meter span 4 meter wide reinforced concrete bridge which is destroyed. It is an important link and would restore traffic from the south to the Limon Airport without having the drive completely around through Limon and approach from the north. Replacement of this bridge is estimated to cost \$100,000 and should take three months to construct.

7. ESTRELLA RIVER HIGHWAY BRIDGE

The Estrella River Bridge is a double span steel truss, bridge with a concrete approach. Both main spans have dropped into the channel. Until this bridge is restored all traffic south of the Estrella River is isolated. This crossing must be restored as soon a possible. The estimated cost of this item is \$1,200,000.

8. VISCAYA TO ESTRELLA ROAD

This 11 mile section of highway was badly damaged by the earthquake. To restore vehicular traffic this road must be repaired, work will include windrowing of existing asphaltic pavement, fill, compaction and resurfacing existing road way. Estimated cost of this item is \$1,200,000 and should take approximately 6 weeks.

9. PORT FACILITY STUDY

Examination of the port facility has revealed that much of the piling system under the piers of the port have been sheared off due to the earthquake. An engineering study of the extent of damage, safety of continued use of the facility, and repair alternatives allowing continued use, needs to be investigated by a competent A-E firm which as experience in such facilities. Estimate for such a study is approximately \$100,000 and should be completed in two months. Recommendations from this study should be incorporated into the Phase II recovery.

10. SIXAOLA RAILROAD BRIDGE

The Sixaola Railroad bridge is a 285m triple span steel truss bridge built by the Baltimore Bridge Company in 1908. The approaches are badly damaged, the railroad track having dropped 2 to 4 feet below original elevation. This bridge is the crossover point between Panama and Costa Rica, with economic implications since much of the fruit south of Cahuita is shipped by rail over this bridge to the Panamanian port of Almirante. Since the northern railway is presently inoperable, this should be repaired as an alternative route. The main span piers on the north side moved during the earthquake, and some damage to the north approach span occurred due to this movement. Estimate for the repair of this bridge is \$168,000 and should take approximately 6 weeks.

**NOTES:**

1. Bypass road from Atalanta to Bananito Sur has been deleted from original plan to allow the addition of the Estrella River Highway Bridge and the Viscaya to Estrella road repair.
2. The demolition of the five bridges has been deleted as work is now planned to be completed by MOPT.
3. Previous road work Items 6 and 8 have been combined and are now listed as Item 5.

ESTIMATED CONSTRUCTION BUDGET

PHASE I - IMMEDIATE RESTORATION

As of 13 May 91

Initial \$1.9M

Road from Limón Airport to Vizcaya Bridge	\$650,000
Bailey Bridge at Río Vizcaya Crossing (Bridge and piling furnished by Costa Rican Government)	\$160,000
Westfalia Bridge	\$100,000
Atalanta Bridge	\$152,000
Banano Bridge	\$108,000
Bananito Sur Railroad Bridge	<u>\$137,000</u>
	1,307,000

Follow-on \$3M

Estrella River Bridge	\$1,200,000
Río Vizcaya Bridge	\$455,000
Sixaola Railroad Bridge	\$168,00
Engineering Study for Port of Limón	\$100,000
Road from La Estrella Bridge to Vizcaya Intersection	<u>\$1,200,000</u>
	\$3,123,000
<b>TOTAL OF 1 AND 2</b>	<b>\$4,430,000</b>
Design costs and contingencies + 14%	<u>\$620,200</u>
	<b>\$5,050,200</b>

**PHASE I: CONTRACT MILESTONES**

As of: 13 May 91

1) REPAIR ROAD FROM LIMON TO VIZCAYA

RFP Issued: 1600 hrs Sat. 11 May  
Bids due: 0900 hrs Wed 15 May  
Award/Price: NLT 1600 hrs Wed 15 May

2) IMPLACE TEMPORARY BAILEY BRIDGE AT VIZCAYA RIVER

RFP Issued: 0800 hrs Mon 13 May  
Bids due: 1500 hrs Mon 13 May  
Award/Price: NLT 1600 hrs Mon 13 May

3) Repair Atalanta RR Bridge

\*RFP issued: 1600 hrs Mon 13 May  
Bids due: 0800 hrs Wed 15 May  
Award/Price: NLT 1300 hrs Wed 15 May

4) Repair Bananto Sur RR Bridge

\*RFP issued: 0900 hrs Tues 14 May  
Bids due: 1700 hrs Wed 15 May  
Award/Price: NLT 0800 hrs Thurs 16 May

5) Repair Estrella Bridge

\*RFP issued: 1300 hrs Tues 14 May  
Bids due: 1300 hrs Fri 17 May  
Award/Price: Upon fund availability

6) Replace Westafalla Bridge

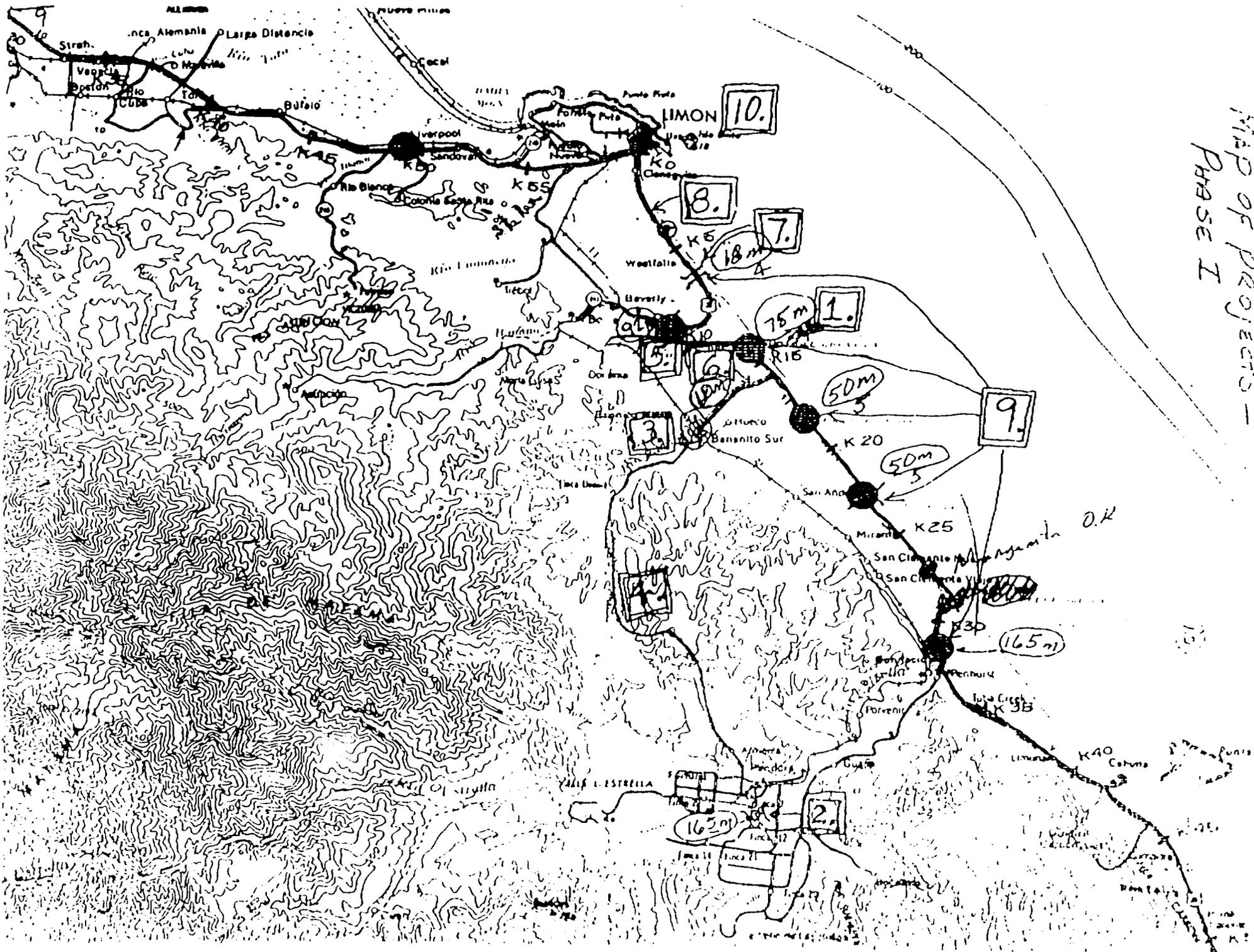
\*RFP issued: 1300 hrs Tues 14 May  
Bids due: 1700 hrs Thurs 16 May  
Award/Price: 0800 hrs Fri 17 May

7) Repair Banano Bridge

\*RFP Issued: 1300 hrs Tues 14 May  
Bids Due: 1600 hrs Wed 15 May  
Award/Price: 0800 hrs Thurs 16 May

\* = Proposed

MAP OF PROJECTS -  
PHASE I



Engineer Damage Assessment

PHASE II: Long Term Restoration

12. BANANITO RIVER HIGHWAY BRIDGE

Map Sheet 3545 IV, E763, Grid Coordinates 823958, San Andres, CR

This is a 50 meter two-span reinforced concrete bridge with 5 meter wide roadway. This bridge is totally destroyed, abutments unusable, and approaches with deep crevices leading up to the bridge caused by the earthquake. Estimated cost of reconstruction of this bridge is \$273,000 and should take approximately 6 months to construct.

13. ESTERO NEGRO HIGHWAY BRIDGE

Map Sheet 3545 IV, Grid Coordinates 872893, San Andres, CR

This bridge is made of two 25 meter spans with a 5 meter wide roadway. The bridge is reinforced concrete. The inland abutment is totally destroyed as is the far concrete span. North approach pavement has deep crevices for 600 feet beyond the bridge. Estimated cost of reconstruction is \$335,000 and should take 5 months.

14. LA ESTRELLA RIVER HIGHWAY BRIDGE

Map Sheet 3544 I, Grid Coordinates 900824, Cahuita, CR

This is a 165 meter double steel truss bridge with a 9 meter wide roadway. The abutments, approaches for 1500 feet, and piers are totally destroyed. Pavement leading up to the bridge dropped 4 to 5 feet, crevices make highway totally unusable. Estimated cost of reconstruction is \$1,635,000 with estimated time of construction 1 year.

15. REPAVEMENT OF HIGHWAY ESTRELLA-VIZCAYA

The highway between the bridges to be rebuilt needs to be ripped, filled, compacted, receive base course and be repaved. Estimated cost of this construction is \$913,000 and should take 1 year since work must proceed with the progress of bridge construction.

16. REHABILITATION OF LIMON INTERNATIONAL AIRPORT

Map Sheet 3545 I, Grid Coordinates 779020, Rio Banano, CR

The Airport was badly damaged by the earthquake reducing the usable length and providing hazards on the runway, taxiway and parking aprons. We were asked after our assessments to make a gross estimate for rehabilitation of the removal of damaged material, recompaction of runway, parking apron, and resurfacing. Estimate was made by map recon. Estimated cost of repair is \$1,644,000 and should take 6 months.

17. PORT FACILITY STUDY REQUIREMENTS

It is anticipated that the port facility study from Phase I will result in required construction at the port to repair pilings damaged during the earthquake. There is no estimate for this item, however, it is included since the estimate should be a part of the recommendations from the initial investigation.

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PHASE III - Land Term Restoration

Summary Sheet

<u>Item</u>	<u>Description</u>	<u>Cost</u>	<u>Time</u>
12.	Bananito River Bridge Reconstruction	272,550	6 mos
13.	Estero Negro Bridge Reconstruction	334,650	6 mos
14.	La Estrella Bridge Reconstruction	\$1,635,000	1 year
15.	Repavement of Highway, Vizcaya-Estrella	913,000	1 year
16.	Reconstruction of Limon Airport	1,644,000	6 mos
17.	Port Facility Study Requirements	?	
	Contingency 20%	959,840	
	GRAND TOTAL	\$5,759,040	



ORIGIN BRAGGT-2 INFO MDIR ECON POL OCAA CONS CDD USIS ADM DPA FOR  
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INFO RUEKJCS / JCS WASHDC IMMEDIATE  
RUEKJCS / SECDEF WASHDC IMMEDIATE  
RUEHNT / AMEMBASSY MANAGUA PRIORITY 7317  
RUEHSA / AMEMBASSY SAN SALVADOR PRIORITY 7341  
RUEHIC / AMEMBASSY TEGUCIGALPA PRIORITY 7857  
RUEHNP / AMEMBASSY PANAMA PRIORITY 1312  
RUEHGV / COMMISSION GENEVA PRIORITY 1532  
RUEHIA / USIA WASHDC PRIORITY 4864  
RUEKJCS / DIA WASHDC PRIORITY  
RUEHIA / NSA WASHDC PRIORITY  
RUEHIA / CIA WASHDC PRIORITY  
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CLASS: UNCLASSIFIED  
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CLEAR: POL:LYUSHITT  
DISTR: 00  
ORIGIN: INFO ID: 00000

UNCLAS SECTION 01 OF 02 SAN JOSE 004532

DEPT PLS PASS TO USAID FOR OFDA

CINCSO FOR POLAD

GENEVA FOR UNDPD AND LRCS

E.O. 12356: 4/A  
TAGS: EAD, AEMR, CASC, XSAF, SEM7, CS  
SUBJECT: COSTA RICAN EARTHQUAKE: SITREP NO. 15  
(1700 LOCAL 4/29)

1. RELIEF OPERATIONS HAVE NOW REACHED VIRTUALLY ALL AREAS. FULL RESTORATION OF WATER AND POWER SERVICES IN LIMON IS PROCEEDING, ALBEIT WITH MORE PROBLEMS THAN HAD BEEN EARLIER ANTICIPATED. USE OF U.S. C-130 AND BLACKHAWK HELICOPTERS WILL LIKELY CONTINUE THROUGH THIS WEEK, WITH EVALUATION OF ONGOING NEED TOWARD WEEK'S END.

2. ROAD TRAFFIC FROM SAN JOSE TO LIMON IS INCREASING AND IS EXPECTED TO BEGIN TO APPROACH NORMAL LEVELS LATER THIS WEEK. WHILE THIS IS IMPORTANT TO NATIONAL ECONOMY, SIGNIFICANT POPULATION LIVING IN THE LIMON SOUTHWARD SECTOR TOWARD SIXAOLO AND THE PANAMANIAN FRONTIER CONTINUES TO BE ISOLATED. THESE PERSONS REMAIN IN DIRE NEED, DEPENDENT ON AIRLIFT SUPPORT OF ESSENTIAL GOODS. RESTORATION OF LAND TRAFFIC IN THIS AREA HAS BECOME THE HIGHEST REHABILITATION PRIORITY.

3. IN THIS CONTEXT, THE CORPS OF ENGINEERS TEAM HAS COMPLETED ITS ASSESSMENT AND PREPARED A FIRST PHASE PLAN TO RESTORE ESSENTIAL AND ALTERNATIVE ROAD AND

ATLAS SECTION 22 OF 22 SAN JOSE 34532  
TREES, ABOVE.

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8. THE MISSION BELIEVES USG FUNDING TO PERMIT IMPLEMENTATION OF THE CORP OF ENGINEERS' ACTION PLAN WOULD HAVE BOTH IMMEDIATE AND LASTING POSITIVE IMPACT, AND WE RECOMMEND AN EARLY AND FAVORABLE RESPONSE TO THE GOCR'S REQUEST. WE ARE PRESENTLY DISCUSSING WITH OPDA ITS DESIRE TO PASS AVAILABLE FUNDS THROUGH OPDA TO THE CORPS OF ENGINEERS TO CARRY OUT THE PLAN DESIGNED BY THE CORPS. USAID OFFICERS ARE ALSO DISCUSSING FUNDING POSSIBILITIES WITH AID'S LAC BUREAU.

9. GOCR OFFICIALS AT MEETING ESTIMATED EXPORT EARNINGS LOSSES IN THE AFFECTED ZONE AT SOME ONE MILLION DOLLARS A DAY, WITH DAY WAGE EARNERS LOSING THEIR OVERALL LIVELIHOOD. THESE ECONOMIC LOSSES WILL CONTINUE TO MOUNT UNTIL VIABLE TRANSPORT NETWORKS ARE REESTABLISHED. LONGER-TERM IMPACT WILL BE HARDEST ON THE AREA'S LOW-INCOME POPULATION ALREADY SEVERELY AFFECTED BY WIDESPREAD DAMAGE TO HOMES, SOCIOECONOMIC INFRASTRUCTURE AND REGULAR COMMERCIAL FOOD AND SERVICES OPERATIONS. FOR THESE REASONS AND BECAUSE OF THE IMMINENT ONSET OF THE FULL RAINY SEASON, WHICH WILL FURTHER COMPLICATE RELIEF AND REHABILITATION WORK, EMERGENCY ROAD AND BRIDGES WORK MUST BEGIN AS QUICKLY AS POSSIBLE. ACCORDINGLY, THE MISSION WOULD APPRECIATE EARLY ACTION ON THE GOCR REQUEST.

10. THIS WILL BE THE MISSION'S FINAL SITREP. FURTHER CABLES WILL BE SENT AS WARRANTED. COMMUNICATIONS ON OPERATIONAL ASSISTANCE MATTERS WILL BE SLOGGED FOR OPDA AND AID/LAC/CEN.

BOHHY  
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SANJOSE 224532/22

Agency for International Development  
Washington, D.C. 20523

LAC-IEE-91-41

ENVIRONMENTAL THRESHOLD DECISION

Project Location : Costa Rica  
Project Title : Rural Infrastructure Restoration  
Project Number : 515-0269  
Funding : \$3,000,000  
Life of Project : 1 year  
IEE Prepared by : Heriberto Rodreguez  
USAID/Costa Rica, General Engineer  
Recommended Threshold Decision : Negative Determination  
Bureau Threshold Decision : Concur with Recommendation  
Comments : The negative determination is made with the understanding that: (1) activities will be limited, as described in the IEE, to the restoration of already existing vehicular and rail routes with no expansion of carrying capacity, and (2) careful monitoring will be done to assure that the environmental mitigation procedures described in the IEE are implemented.  
Copy to : Ronald B. Venezia, Director  
USAID/Costa Rica  
Copy to : Heriberto Rodreguez, USAID/Costa Rica  
Copy to : Wm. Richard Garland  
USAID/Costa Rica  
Copy to : Wayne Williams, REA/ROCAP

- 2 -

Copy to : Mark Silverman, LAC/DR/CEN  
Copy to : IEE File

John O Wilson Date MAY 16 1991

John O. Wilson  
Deputy Chief Environmental Officer  
Bureau for Latin America  
and the Caribbean

JB

- 3 -

Drafted: JBrokaw: JB: 7071E: 5/16/91

- 20 -



**AGENCY FOR INTERNATIONAL DEVELOPMENT**  
UNITED STATES A. I. D. MISSION TO COSTA RICA

APO. Miami, FL 34020  
Telephone: 20-45-45  
Telex 3550 AIDCR KR  
Fax: (506) 20-34-34

May 15, 1991

**MEMORANDUM**

**TO:** Jim Hester, LAC/DR/E  
Jeff Brokaw, LAC/DR/E

**FROM:** Richard Burke, PRO *RB*  
Wm. Richard Garland, PDO *WRG*

**SUBJECT:** IEE for the Rural Infrastructure Restoration Project (515-0269)

As per my conversation with Jeff this morning, attached for your review is the IEE prepared here at the Mission for the Rural Infrastructure Restoration Project (515-0269). We appreciate the assistance your office has provided in helping us to prepare it. We hope that you can look at this as soon as possible. As you know, the urgency here stems from the need to restore the land transport routes that were severely damaged as a result of a major earthquake April 22. There are approximately 135,000 people isolated in southeastern Costa Rica who are subsisting on supplies that can be dropped by air or brought in over water.

Current plans for finalizing the Project's documentation are as follows. The Congressional Notification for this Project will expire Saturday, May 18. Budget allocations will be provided Monday, May 20. The Assistant Administrator for LAC will be ready to sign the authorization the same day. And the Regional Contracting Officer will be ready to contract with the U.S. Army Corps of Engineers on Monday as well.

Please contact me or Mr. Richard Burke if you have any questions on the IEE or planned project activities.

**Distribution:**

Heriberto Rodríguez, PDO  
Major Steve McIntire, USACE  
Bill Baucom, RDO  
Anne Lewandowski, RDO  
Dick Burke, PRO

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## INITIAL ENVIRONMENTAL EXAMINATION

**Project Location:** Costa Rica  
**Project Title:** Rural Infrastructure Restoration  
**Project Number:** 515-0269  
**Funding:** \$3,000,000  
**Life of Project:** One year

**Project Description.** Costa Rica suffered severe human and socioeconomic infrastructure losses in the 7.4 Richter scale earthquake which struck on April 22, 1991. Human losses were substantial, with 46 confirmed dead, approximately 400 injured, and over 4,000 homes and public buildings destroyed or badly damaged. In addition to the loss of life, the infrastructure damage and disruption of the economy in the areas south and west of Limon City was massive. Approximately 135,000 people living in this area have lost vehicular land connections with the rest of the country and with the markets for their products, reducing them in the main to subsistence levels of living. Until road, rail and bridge vehicular traffic can be restored, these people will continue to be dependent on air and limited land resupply of essential foodstuffs and other goods. In addition to the substantial infrastructure losses from the earthquake itself, Government of Costa Rica (GOCR) officials estimate daily market losses to the export economy at one million dollars or more, particularly from fruits and other perishables.

The purpose of this \$3 million project is to carry out emergency infrastructure restoration in the earthquake-damaged Atlantic Zone of Costa Rica. The project will supplement the \$2 million immediate emergency relief and rehabilitation activities currently authorized by OFDA. A Damage Assessment by the U.S. Army Corps of Engineers serves as the design document for the project. The project will fund restoration work along existing communications routes to achieve near-term (45-90 days) repairs of highways and railroad communications for the isolated Valle de la Estrella and Talamanca regions. This work will restore already existing road, rail and bridge connections between Limon and points south to Sixaola and the Panamanian frontier and reinvigorate the economy of the region. The vehicular route, when it was last expanded in 1978 was done in an environmentally responsible manner, with the work having been guided by analyses of its environmental impact. This present effort is only to restore adequate access to the approximately 135,000 isolated people and there will be no expansion of carrying capacity.

Some examples of the type of work contemplated include: rebuilding the abutments of a railroad bridge, restoring its rails and vehicular decking; repair of road and bridge approaches including windrowing of existing pavement, fill, compaction and resurfacing; and repair of bents under main bridge spans and approach spans.

This project will be implemented by the U.S. Army Corps of Engineers which is currently working with the \$2 million emergency assistance authorized by OFDA on May 3, 1991. This project will be a continuation of that effort. The Mission is using a Memorandum of Agreement (MOA) between USAID and U.S. Department of Army to implement the initial effort, and plans to use the same mechanism for this project.

Discussion. The U.S. Army Corps of Engineers, as is A.I.D., is required to follow environmentally appropriate Implementation methods. The U.S. Army Corps of Engineers is well versed and highly trained in employing ameliorative measures that eliminate or minimize environmental impact. As a U.S. government entity, the Corps follows strictly the same requirements as A.I.D., the Executive Order 12114 issued January 4, 1979, entitled Environmental Effects Abroad of Major Federal Actions and the National Environmental Policy Act of 1970. To assure that it performs all its work in an environmentally sound manner, the Corps has developed the highly technical Commanders Guide to Environmental Management which describes environmentally appropriate methods that must be used in all its construction activities. The Guide requires such safeguards as: barriers on river banks to assure a minimum increase of construction-related suspended particulate in the water; the removal of construction debris rather than its disposal into waterways; appropriate disposal of hazardous material and chemicals rather than random discarding; minimal impact on vegetation and ground cover in construction areas; use of appropriate techniques that are sensitive to fish and wildlife; and methods sensitive to cultural resources.

It is of note that the U.S. Army Corps of Engineers team will include members who have received specialized training in environmentally sound construction methods and who will constantly be involved in all aspects of the planned road and bridge restoration work. Furthermore, cooperating-country nationals, with particular interest in maintaining their country's natural resource endowments, stand ready to be called upon for resolution of any issue regarding potential environmental impacts. Finally, the Mission Environmental Officer daily will be working alongside the Corps team during the entire restoration effort and will ensure that the required environmentally appropriate methods are utilized.

Given that: (1) the project is oriented to the rehabilitation and restoration of already existing vehicular and rail routes with no expansion of carrying capacity being contemplated; (2) the U.S. Army Corps of Engineers will be implementing the project, is well versed and highly trained in environmentally sound construction methods, and is required to follow the mandates of Executive Order 12114 and the National Environmental Policy Act of 1970; and (3) the Mission Environmental Officer will be directly involved in the implementation of this project, the Mission recommends a negative threshold decision.

Recommended Action. Based on A.I.D. regulations in Handbook 3, Chapter 2, the A.I.D. Mission to Costa Rica recommends that no further environmental study be undertaken for this Project.

IEE Prepared by:

  
Herberto Rodríguez  
General Engineer  
USAID/Costa Rica

Concurrence:

  
Ronald F. Venezia  
Mission Director  
USAID/Costa Rica

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